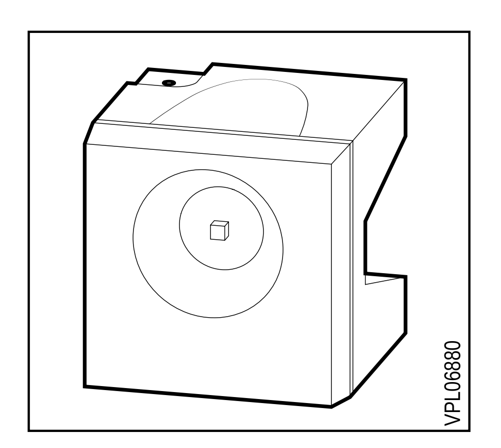
SIEMENS

LC SIDELED® Low Current LED

LS A679, LY A679, LG A679



Besondere Merkmale

- Gehäusefarbe: weiß
- als optischer Indikator einsetzbar
- zur Hinterleuchtung, Lichtleiter- und Linseneinkopplung
- für alle SMT-Bestück- und Reflow-Löttechniken geeignet
- gegurtet (12-mm-Filmgurt)



Features

- color of package: white
- for use as optical indicator
- for backlighting, optical coupling into light pipes and lenses
- suitable for all SMT assembly and reflow soldering methods
- available taped on reel (12 mm tape)

Typ Type	Emissions-farbe Color of Emission	Farbe der Lichtaustritts-fläche Color of the Light Emitting Area	Lichtstärke Luminous Intensity I_F = 2 mA I_V(mcd)	Lichtstrom Luminous Flux I_F = 2 mA Φ_V (mlm)	Bestellnummer Ordering Code
LS A679-CO	super-red	colorless clear	≥ 0.25 (1.0 typ.)	3.0 (typ.)	Q62703-Q2551
LY A679-CO	yellow	colorless clear	≥ 0.25 (1.0 typ.)	3.0 (typ.)	Q62703-Q2554
LG A679-CO	green	colorless clear	≥ 0.25 (1.0 typ.)	3.0 (typ.)	Q62703-Q2545

Streuung der Lichtstärke in einer Verpackungseinheit $I_{V\,max} / I_{V\,min} \leq 2.0$.
Luminous intensity ratio in one packaging unit $I_{V\,max} / I_{V\,min} \leq 2.0$.

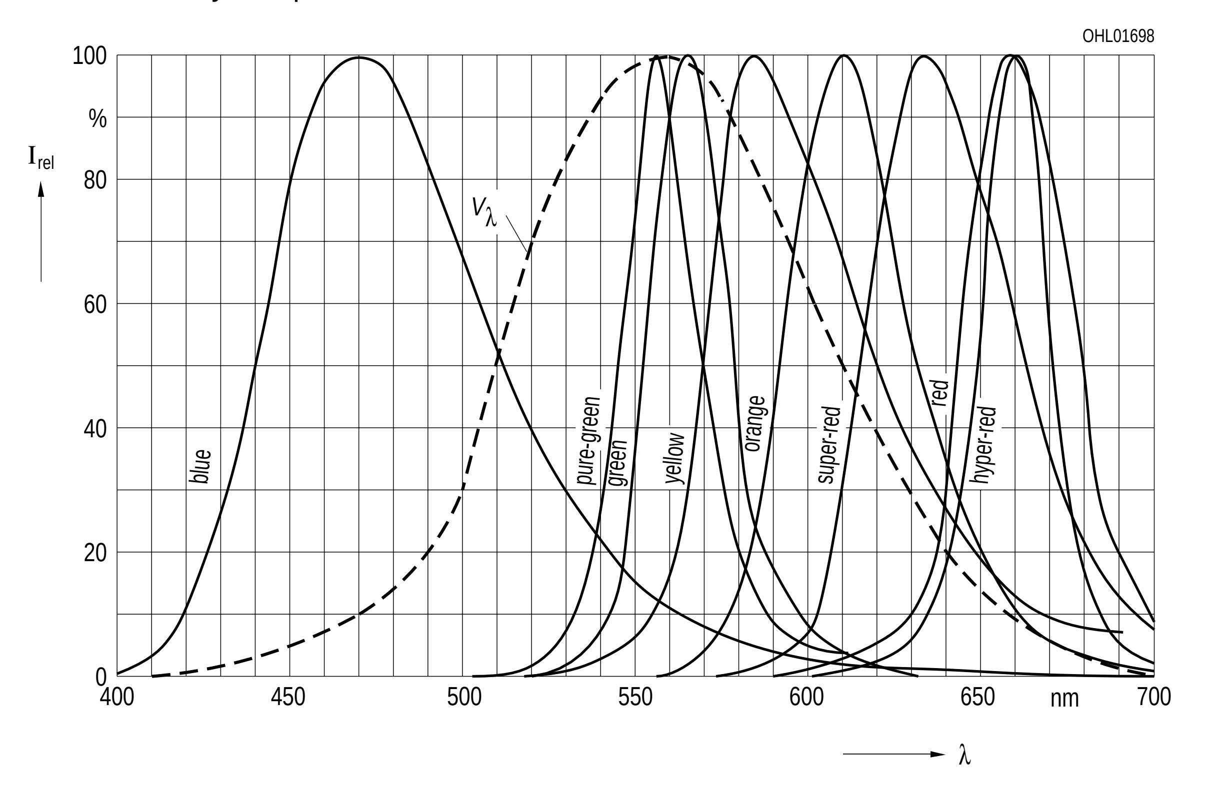
Grenzwerte
Maximum Ratings

Bezeichnung **Parameter**	**Symbol** **Symbol**	**Werte** **Values**	**Einheit** **Unit**
Betriebstemperatur Operating temperature range	T_{op}	– 55 ... + 100	˚C
Lagertemperatur Storage temperature range	T_{stg}	– 55 ... + 100	˚C
Sperrschichttemperatur Junction temperature	T_j	+ 100	˚C
Durchlaßstrom Forward current	I_F	7.5	mA
Stoßstrom Surge current $t \leq 10$ µs, $D = 0.005$	I_{FM}	0.15	A
Sperrspannung Reverse voltage	V_R	5	V
Verlustleistung Power dissipation	P_{tot}	20	mW
Wärmewiderstand Thermal resistance Sperrschicht / Umgebung Junction / air Montage auf PC-Board (Padgröße ≥ 16 mm ^{2}) mounted on PC board (pad size ≥ 16 mm ^{2})	$R_{th\ JA}$	500	K/W

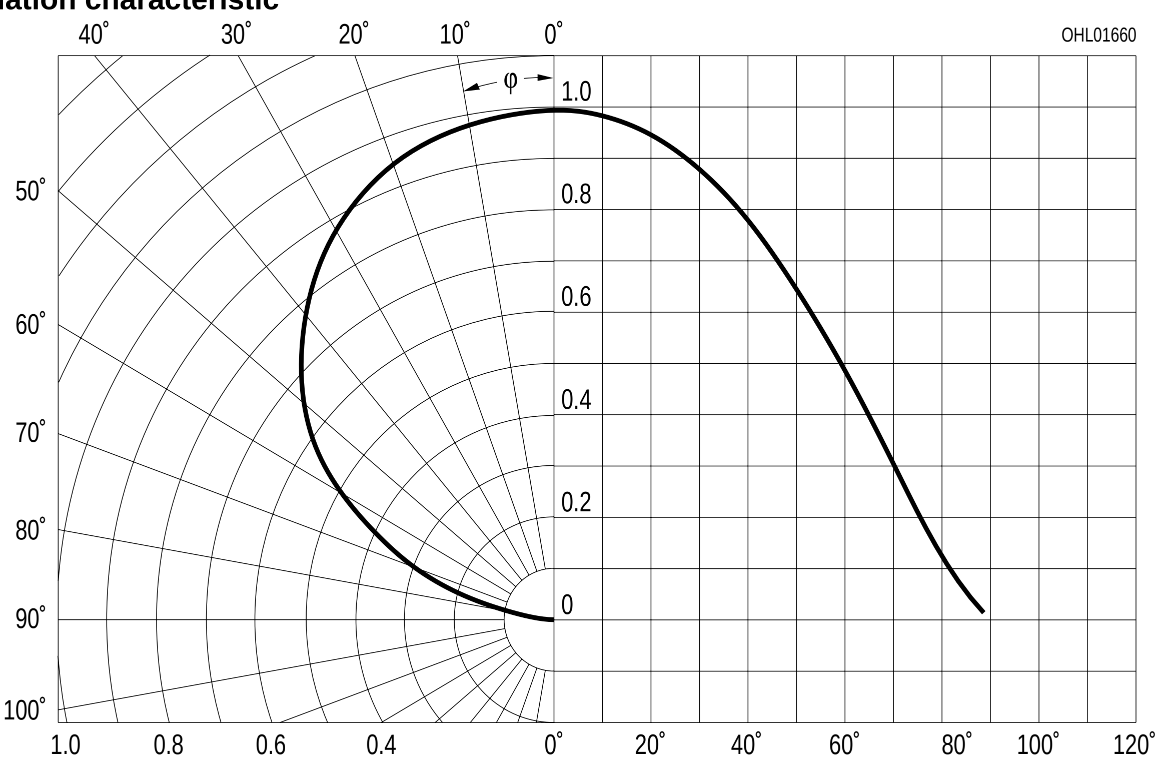
Kennwerte (T_A = 25 °C)
Characteristics

Bezeichnung Parameter	Symbol Symbol	Werte Values			Einheit Unit
		LS	LY	LG	
Wellenlänge des emittierten Lichtes (typ.) Wavelength at peak emission (typ.) I_F = 7.5 mA	λ_{peak}	635	586	565	nm
Dominantwellenlänge (typ.) Dominant wavelength (typ.) I_F = 7.5 mA	λ_{dom}	628	590	570	nm
Spektrale Bandbreite bei 50 % $I_{rel\ max}$ (typ.) Spectral bandwidth at 50 % $I_{rel\ max}$ (typ.) I_F = 7.5 mA	$\Delta\lambda$	45	45	25	nm
Abstrahlwinkel bei 50 % I_V (Vollwinkel) Viewing angle at 50 % I_V	2φ	120	120	120	Grad deg.
Durchlaßspannung (typ.) Forward voltage (max.) I_F = 2 mA	V_F V_F	1.8 2.6	2.0 2.7	1.9 2.6	V V
Sperrstrom (typ.) Reverse current (max.) V_R = 5 V	I_R I_R	0.01 10	0.01 10	0.01 10	µA µA
Kapazität (typ.) Capacitance V_R = 0 V, f = 1 MHz	C_0	3	3	15	pF
Schaltzeiten: Switching times: I_V from 10 % to 90 % (typ.) I_V from 90 % to 10 % (typ.) I_F = 100 mA, t_p = 10 µs, R_L = 50 Ω	 t_r t_f	 200 150	 200 150	 450 200	 ns ns

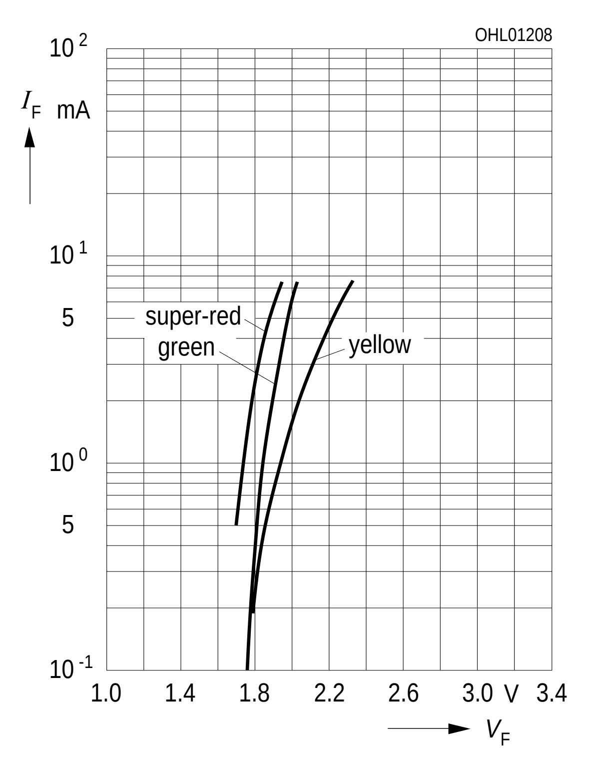
Relative spektrale Emission $I_{rel} = f(\lambda)$, T_A = 25 °C, I_F = 7.5 mA
Relative spectral emission
V (λ) = spektrale Augenempfindlichkeit
Standard eye response curve



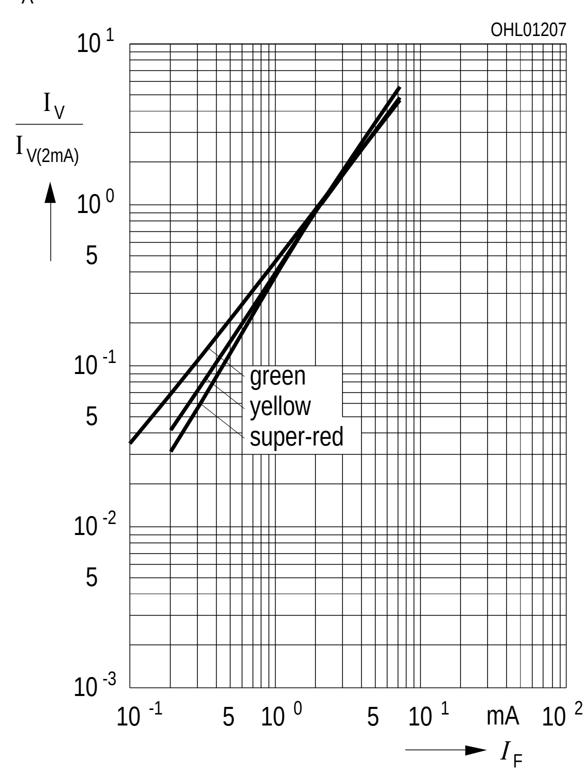
Abstrahlcharakteristik $I_{rel} = f(\varphi)$
Radiation characteristic



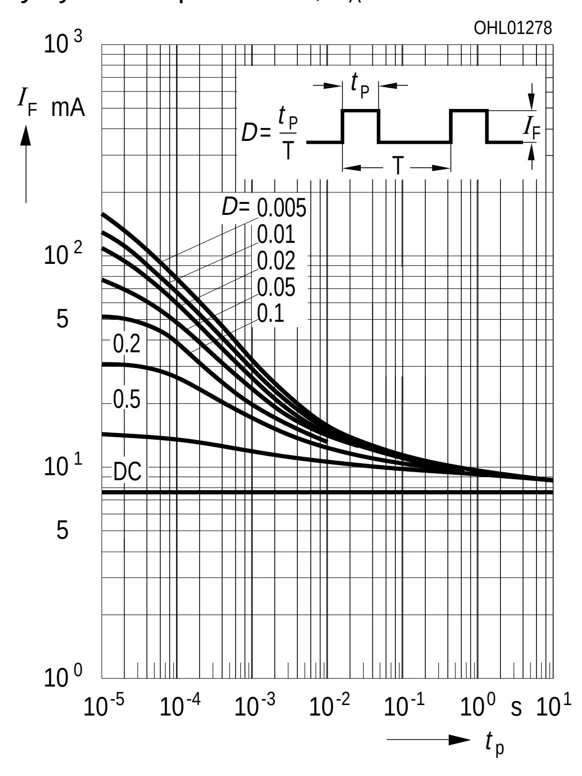
Durchlaßstrom $I_F = f\ (V_F)$
Forward current
T_A = 25 ˚C



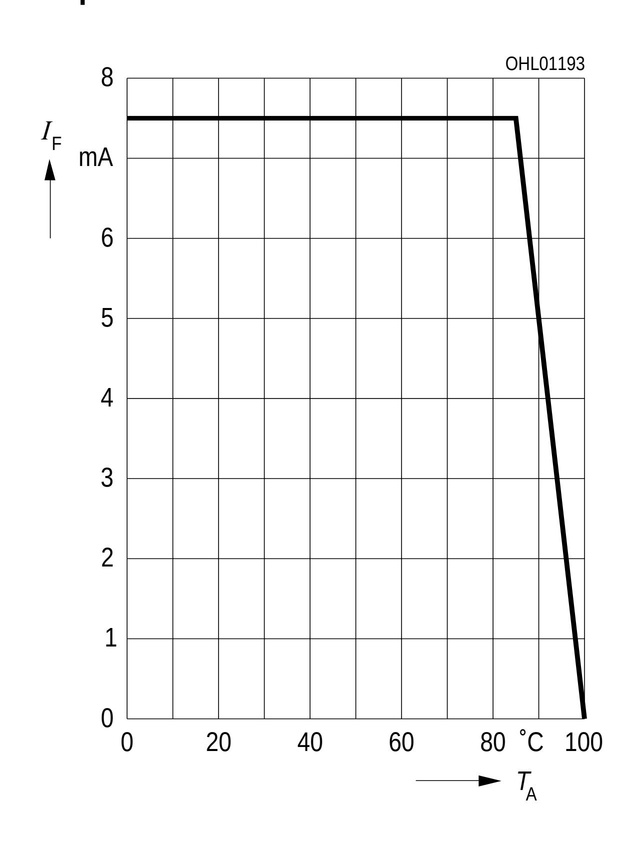
Relative Lichtstärke $I_V / I_{V(2\ mA)} = f\ (I_F)$
Relative luminous intensity
T_A = 25 ˚C



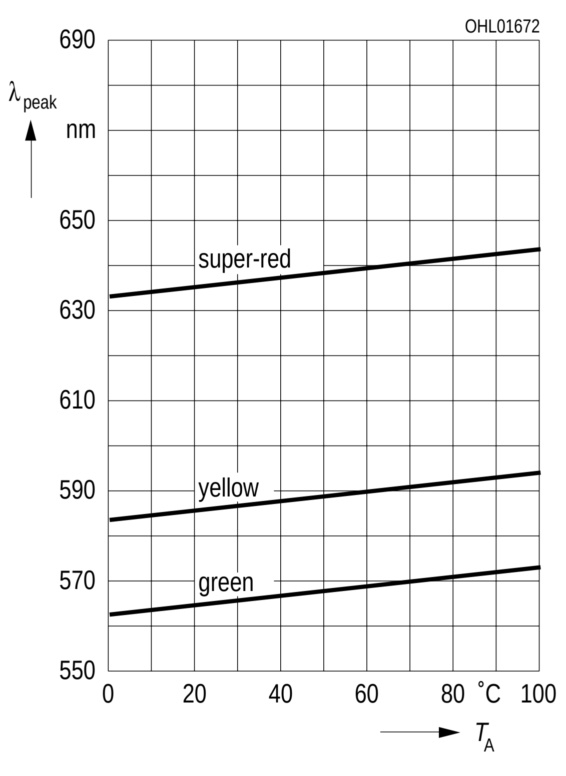
Zulässige Impulsbelastbarkeit $I_F = f\ (t_p)$
Permissible pulse handling capability
Duty cycle D = parameter, T_A = 25 ˚C



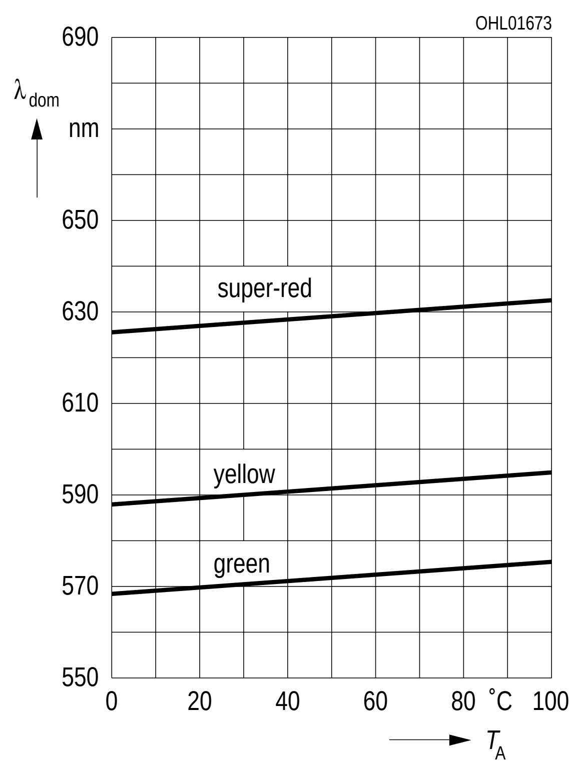
Maximal zulässiger Durchlaßstrom $I_F = f\ (T_A)$
Max. permissible forward current



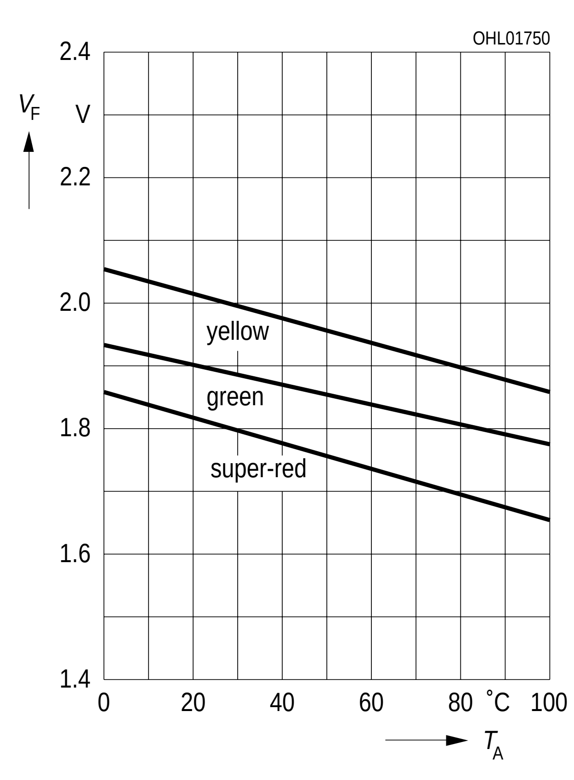
Wellenlänge der Stahlung $\lambda_{peak} = f(T_A)$
Wavelength at peak emission
I_F = 7.5 mA



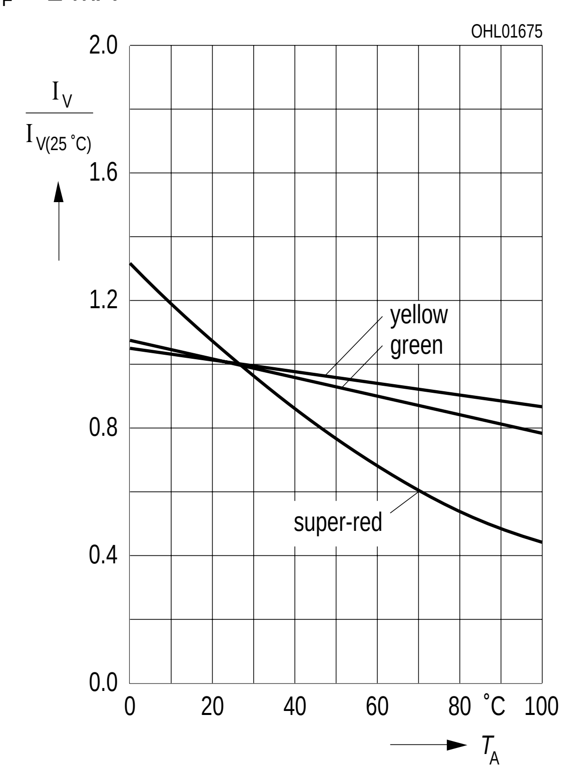
Dominantwellenlänge $\lambda_{dom} = f(T_A)$
Dominant wavelength
I_F = 7.5 mA



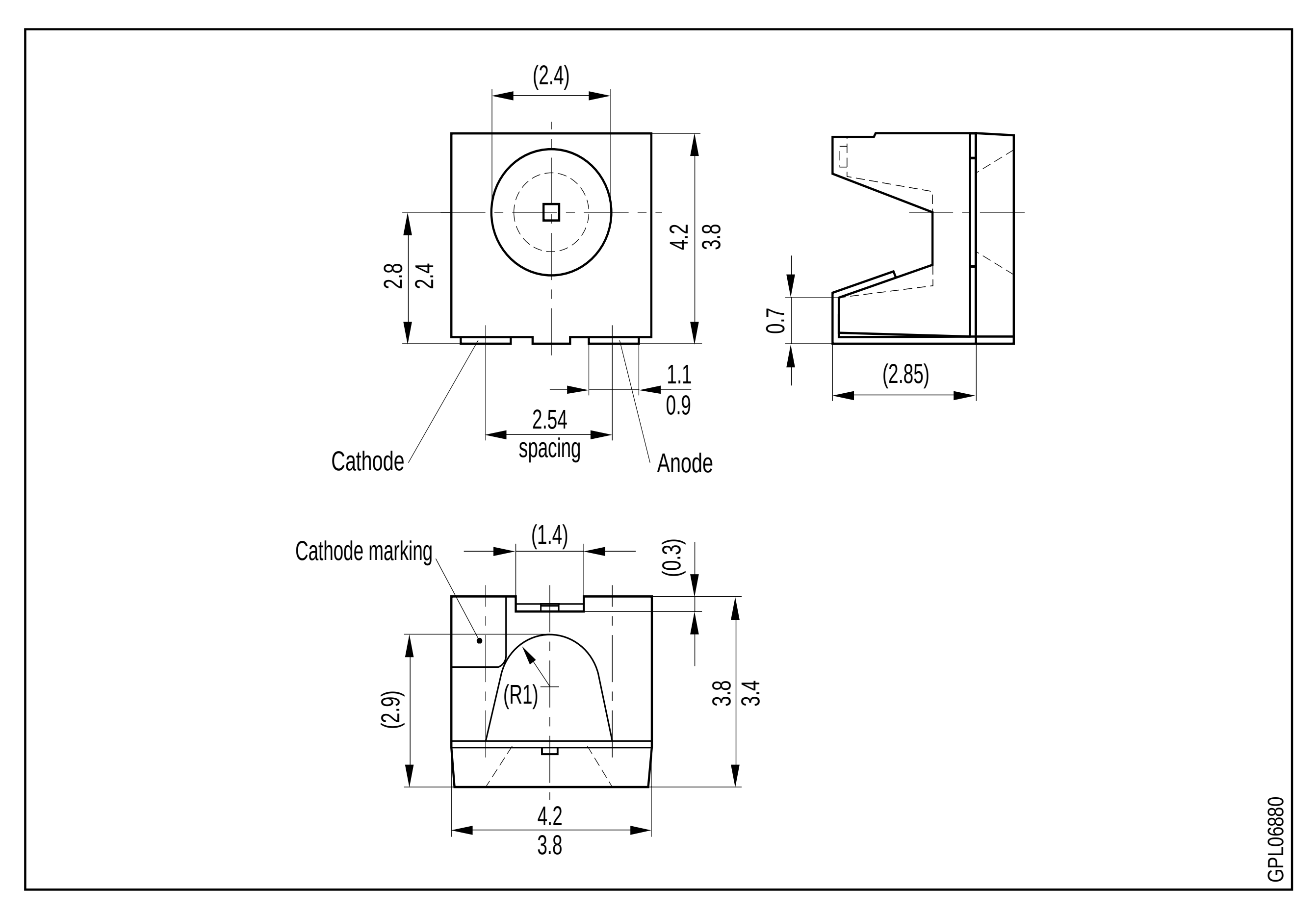
Durchlaßspannung $V_F = f(T_A)$
Forward voltage
I_F = 2 mA



Relative Lichtstärke $I_V / I_{V(25\,°C)} = f(T_A)$
Relative luminous intensity
I_F = 2 mA



Maßzeichnung (Maße in mm, wenn nicht anders angegeben)
Package Outlines (Dimensions in mm, unless otherwise specified)



Kathodenkennung: abgeschrägte Ecke
Cathode mark: bevelled edge